

- II. "Note on a preliminary Comparison between the Dates of Cyclonic Storms in Great Britain and those of Magnetic Disturbances at the Kew Observatory." By BALFOUR STEWART, M.A., LL.D., F.R.S., and WM. LANT CARPENTER, B.A., B.Sc. Received February 11, 1885.

We took the dates of thirty storms from Mr. Scott's paper entitled "The Equinoctial Gales; do they occur in the British Isles?" in the "Quarterly Journal of the Meteorological Society" for October, 1884, and by the kindness of Mr. Whipple, of the Kew Observatory, were enabled to make the comparison mentioned above.

Out of these thirty storms, in twenty-three cases there is a distinct magnetic disturbance, for the most part preceding the storm by somewhat more than a day. We do not, however, imagine that we have thus proved the fact of such a connexion, but think the results we have attained sufficient to justify us in pursuing the subject.

February 26, 1885.

THE TREASURER in the Chair.

The Presents received were laid on the table and thanks ordered for them.

The following Papers were read :—

- I. "On a remarkable Phenomenon of Crystalline Reflection." By G. G. STOKES, M.A., Sec. R.S., Lucasian Professor of Mathematics in the University of Cambridge. Received February 25, 1885.

Introduction.

In a letter to me, dated March 29, 1854, the late Dr. W. Bird Herapath enclosed for me some iridescent crystals of chlorate of potash, which he thought were worth my examination. He noticed the intense brilliancy of the colour of the reflected light, the change of tint with the angle of incidence, and the apparent absence of polarisation in the colour seen by reflection.

The crystals were thin and fragile, and rather small. I did not see how the colour was produced, but I took for granted that it must be